

FIG. 1

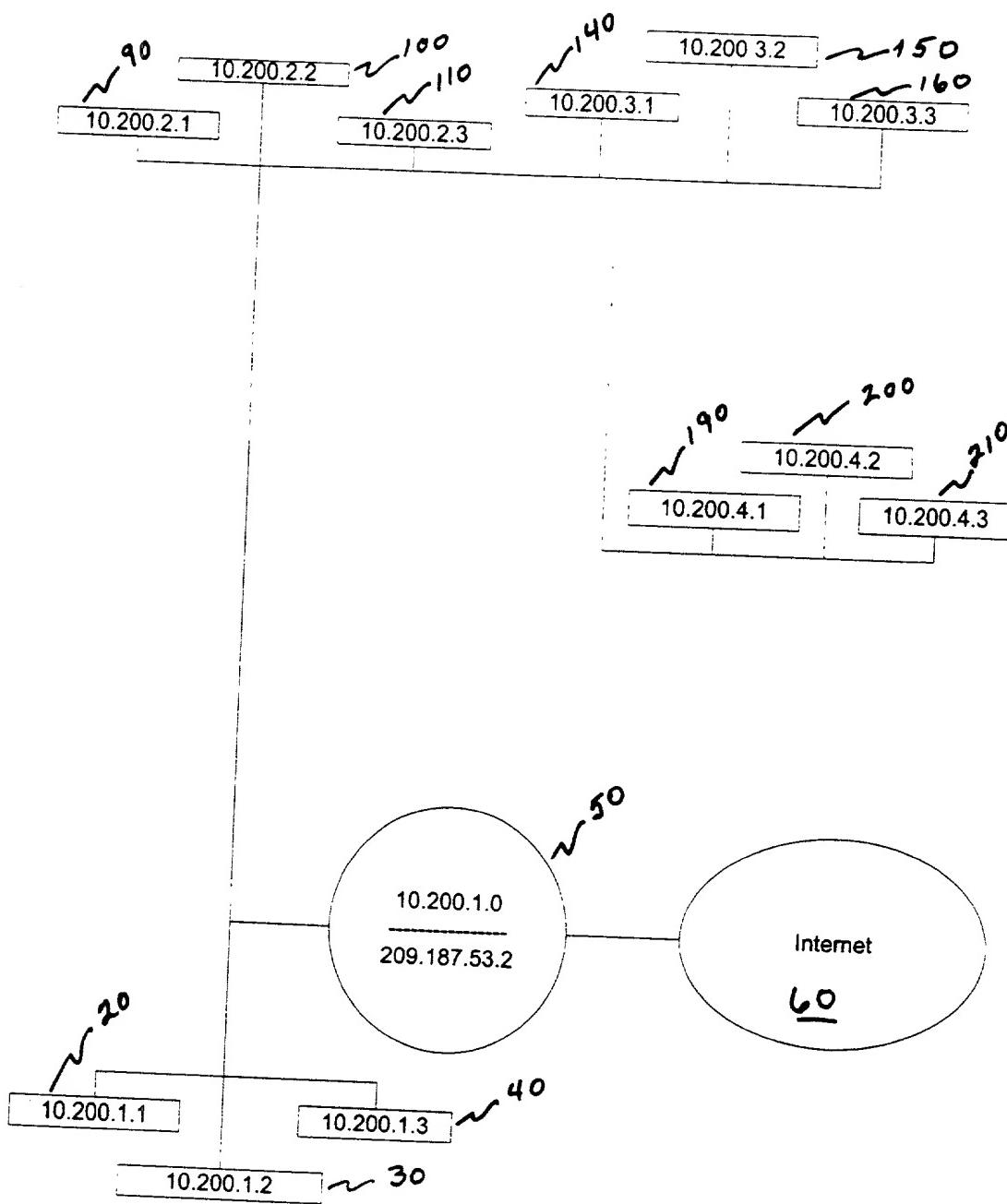


FIG. 2

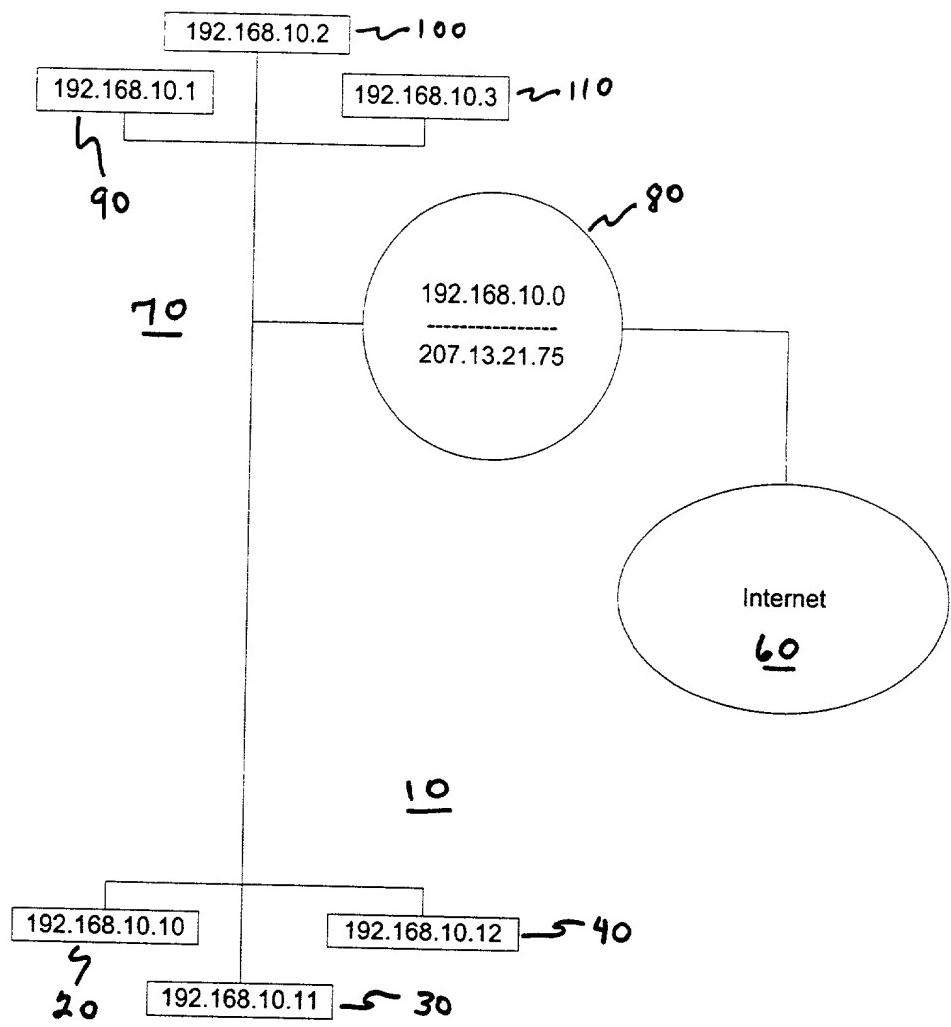


FIG. 3

Network Address Scheme

		Actual LAN IP Addresses	Virtual LAN IP Addresses	Virtual LAN IP Addresses on Network A	Internet IP Addresses (Global)
10	~	Network A	10.200.1		
50	~	NAT-Router A	10.200.1.0		209.187.53.2
20	~	Host 1	10.200.1.1		
30	~	Host 2	10.200.1.2		
40	~	Host 3	10.200.1.3		
70	~	Network B	192.168.10	10.200.2	
80	~	NAT-Router B	192.168.10.0	10.200.2.0	207.13.21.75
90	~	Host 4	192.168.10.1	10.200.2.1	
100	~	Host 5	192.168.10.2	10.200.2.2	
110	~	Host 6	192.168.10.3	10.200.2.3	
		Host 1			192.168.10.10
		Host 2			192.168.10.11
		Host 3			192.168.10.12
120	~	Network C	192.168.10	10.200.3	
130	~	NAT-Router C	192.168.10.0	10.200.3.0	210.212.3.25
140	~	Host 7	192.168.10.1	10.200.3.1	
150	~	Host 8	192.168.10.3	10.200.3.2	
160	~	Host 9	192.168.10.8	10.200.3.3	
		Host 1			192.168.10.25
		Host 2			192.168.10.26
		Host 3			192.168.10.27
170	~	Network D	10.200.4	10.200.4	
180	~	NAT-Router D	10.200.4.0	10.200.4.0	198.242.20.5
190	~	Host 10	10.200.4.1	10.200.4.1	
200	~	Host 11	10.200.4.2	10.200.4.2	
210	~	Host 12	10.200.4.3	10.200.4.3	
		Host 1			10.200.1.1
		Host 2			10.200.1.2
		Host 3			10.200.1.3

FIG. 4

Translation Tables

Network A

	10.200.1	10.200.2	10.200.3	10.200.4
Host 1	10.200.1.1	192.168.10.10	192.168.10.25	10.200.1.1
Host 2	10.200.1.2	192.168.10.11	192.168.10.26	10.200.1.2
Host 3	10.200.1.3	192.168.10.12	192.168.10.27	10.200.1.3

Network B

	192.168.10	10.200.1
Host 4	192.168.10.1	10.200.2.1
Host 5	192.168.10.2	10.200.2.2
Host 6	192.168.10.3	10.200.2.3

Network C

	192.168.10	10.200.1
Host 7	192.168.10.1	10.200.3.1
Host 8	192.168.10.3	10.200.3.2
Host 9	192.168.10.8	10.200.3.3

Network D

	10.200.4	10.200.1
Host 10	10.200.4.1	10.200.4.1
Host 11	10.200.4.2	10.200.4.2
Host 12	10.200.4.3	10.200.4.3

FIG. 5

ADDRESS TRANSLATION IN IP PACKETS

		Routing Sending	Sending Receiving	Sending Host	Sending NAT-Router	Receiving NAT-Router	Tunnel Routing
220 ~	Source	Host 1		10.200.1.1	192.168.10.10	192.168.10.10	209.187.53.2
	Destination		Host 5	10.200.2.2	10.200.2.2	192.168.10.2	207.13.21.75
230 ~	Source	Host 5		192.168.10	10.200.2.2	10.200.2.2	207.13.21.75
	Destination		Host 1	192.168.10	192.168.10.10	10.200.1.1	209.187.53.2
240 ~	Source	Host 2		10.200.1.2	192.168.10.26	192.168.10.26	209.187.53.2
	Destination		Host 7	10.200.3.1	10.200.3.1	192.168.10.1	210.212.3.25
250 ~	Source	Host 7		192.168.10	10.200.3.1	10.200.3.1	210.212.3.25
	Destination		Host 2	192.168.10	192.168.10.26	10.200.1.2	209.187.53.2
260 ~	Source	Host 3		10.200.1.3	10.200.1.3	10.200.1.3	209.187.53.2
	Destination		Host 12	10.200.4.3	10.200.4.3	10.200.4.3	198.242.20.5
270 ~	Source	Host 12		10.200.4.3	10.200.4.3	10.200.4.3	198.242.20.5
	Destination		Host 3	10.200.1.3	10.200.1.3	10.200.1.3	209.187.53.2
280 ~	Source	Host 2		10.200.1.2	192.168.10.11	192.168.10.11	209.187.53.2
	Destination		Host 4	10.200.2.1	10.200.2.1	192.168.10.1	207.13.21.75
290 ~	Source	Host 4		192.168.10	10.200.2.1	10.200.2.1	207.13.21.75
	Destination		Host 2	192.168.10	192.168.10.11	10.200.1.2	209.187.53.2

FIG. 6

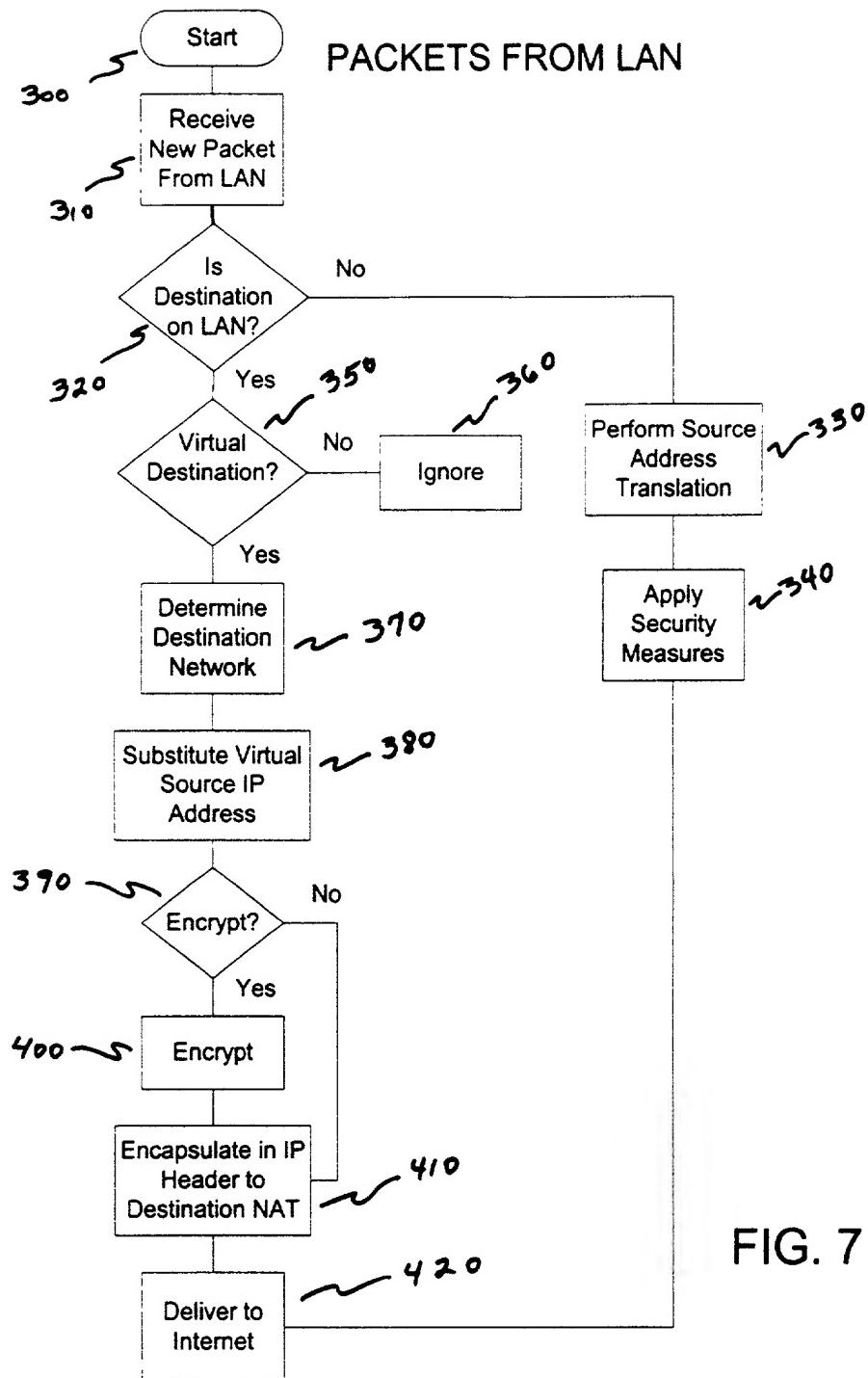


FIG. 7

PACKETS FROM INTERNET

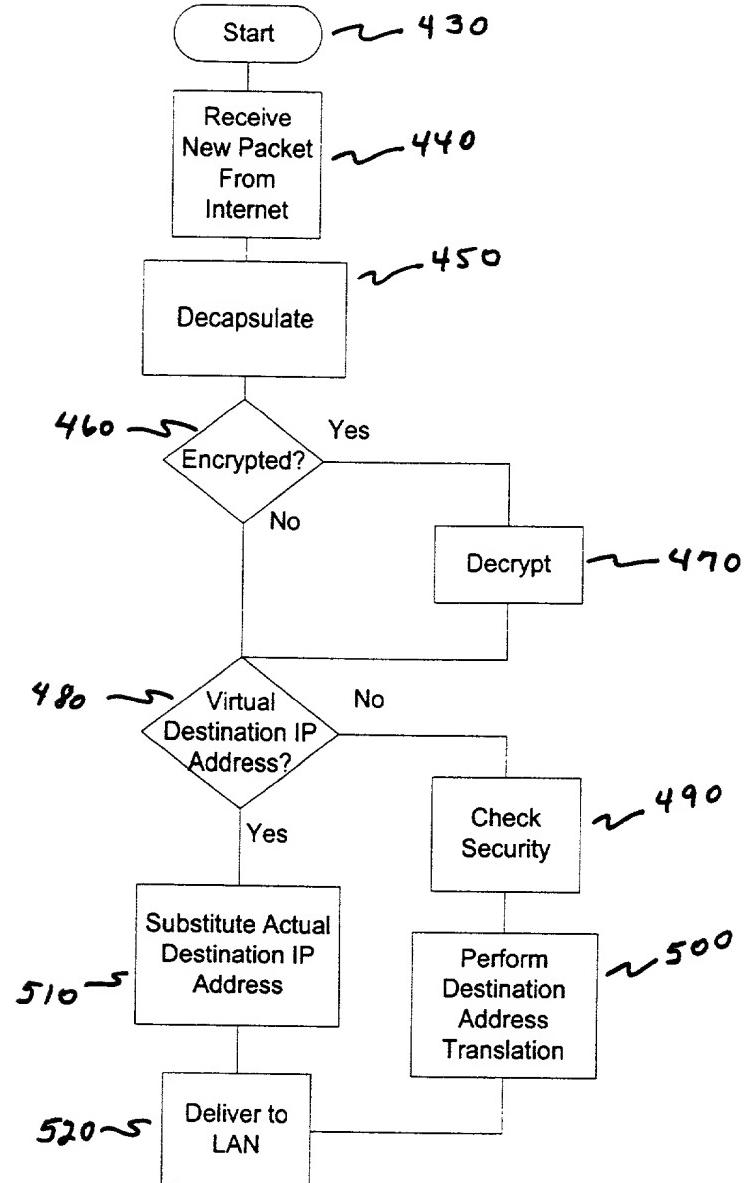


FIG. 8